Docket No.: KNOXX.02

December 22, 2005

Page 1 of 2

Please Direct All Correspondence to Customer Number 20995

TRANSMITTAL LETTER APPEAL BRIEF Applicant Dohn J. Trempala

CERTIFICATE OF MAILING

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Alexandria, VA 22313-1450, on

ecember 22.

LOCKING CAP SYSTEM

10/789,630

February 27, 2004

Suzanne Lale Dino Barrett Examiner

Art Unit 3676

App. No

Filed

For

Mail Stop Appeal Brief - Patents ®

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing in the above-identified application are the following enclosures:

- (X) Appeal Brief in twenty-one (21) pages including the evidence appendix references.
- (X) Courtesy Copy of Notice of Appeal in two (2) pages.

FILING FEES:

The present application qualifies for Small Entity Status under 37 CFR 1.27.

FEE CALCULATION						
FEE TYPE FEE CODE CALCULATION TOT						
Appeal Brief	41.20(b)(2)	2402 (\$250)		\$250		
3 Month Extension	1.17(a)(3)	2253 (\$510)		\$510		
-			TOTAL FEE DUE	\$760		

- An extension of time is hereby requested by payment of the appropriate fee (X) indicated above.
- (X) A check in the amount of \$760 is enclosed.
- (X) Return prepaid postcard.

12/28/2005 CCHAU1 00000005 10789630

Docket No.

KNOXX.024C2

Application No.

10/789,630

Filing Date

February 27, 2004

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Dated: December 22, 2005

Registration No. 44,304

Customer No.: 20,995

Attorney of Record Customer No. 20,995 (949) 760-0404

2239439:ah 122205 KNOXX.024C2

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant

Dohn J. Trempala

Appl. No.

: 10/789,630

DEC 27 2005

Filed

: February 27, 2004

For

LOCKING CAP SYSTEM

Examiner

Suzanne Lale Dino Barrett

Group Art Unit

3676

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December 22, 2005

Robert I Poby Rev No. 44

APPEAL BRIEF IN RESPONSE TO OFFICE ACTION MAILED JUNE 24, 2005

Mail Stop Appeal Brief-Patents

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicant is appealing the rejection of Claims 1-7, 15-17 and 24-38 of the present application as contained in the Office Action that was mailed on June 24, 2005. With the exception of Claims 34-38, the rejected claims were also previously rejected in an Office Action that was mailed on December 8, 2004.

This Appeal Brief is being filed within two months from the date of filing the Notice of Appeal under 37 C.F.R. § 41.31, which is being forwarded under separate cover. A courtesy copy of the Notice of Appeal is enclosed with this Appeal Brief. Also enclosed with this Appeal Brief is the fee set forth in 37 C.F.R. § 41.20(b)(2). Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee of the present application, The Knox Company ("Assignee"). Assignee is the owner of one-hundred percent interest in the

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present application as evidenced by an assignment recorded at Reel No. 010031, Frame 0873 by the Assignment Branch of the United States Patent and Trademark Office.

RELATED APPEALS AND INTERFERENCES

Appellant, Appellant's legal representative and Assignee are unaware of any prior or pending appeal, interference or judicial proceeding that may be related to, that may directly affect, that may be directly affected by, or that may have a bearing on the Board's decision in the present appeal. Because of this lack of knowledge, no decisions are included in the appendix labeled RELATED APPEALS AND INTERFERENCES.

STATUS OF CLAIMS

Currently, the following status exists for each of the claims: Claims 1-7 stand rejected; Claims 8-14 have been cancelled; Claims 15-17 stand rejected; Claims 18-23 have been cancelled; Claims 24-30 stand rejected; Claim 31 is allowed; Claims 32-34 stand rejected; Claims 35 is objected to as depending upon rejected Claim 1; Claim 36 stands rejected; Claim 37 is objected to as depending upon rejected Claim 1; and Claim 38 stands rejected.

The rejections of Claims 1-7, 15-17, 24-30, 32-34, 36 and 38 are being appealed.

STATUS OF AMENDMENTS

No amendments have been filed subsequent to the rejection. Therefore, the claims before the Board appear as they were rejected.

SUMMARY OF CLAIMED SUBJECT MATTER

To ease the understanding of the claimed subject matter, the following description will make reference to the published version of the application on appeal. The application was published on September 2, 2004 as United States Patent Application Publication No. US 2004/0168488 A1. A copy of the publication is attached in the Evidence Appendix.

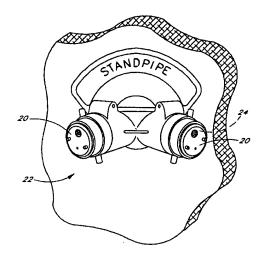
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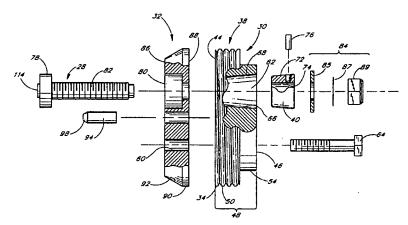
In general, the present invention relates to a locking cap for a pipe end. In one preferred

configuration, the present invention relates to a locking cap that attaches to a fire department connection. Fire department connections are commonly found at standpipe locations alongside buildings, for instance. See Figure 1 (reproduced to the right). As explained in the Background of the Invention, in particular at paragraphs [0006] through [0008], these fire department connections are often in easily accessed areas and, therefore, are often subject to vandalism or foolishness. If an individual were to place



trash, rocks or the like in an unprotected fire department connection, use of the fire department connection would compromised at best and use of the fire department connection could destroy the associated sprinkler system at worst. Thus, the present invention provides locking caps, and keys for use with such locking caps, whereby the locking caps can be locked in place to secure the fire department connection until the fire department needs to remove the locking cap to recharge the sprinkler system during an actual emergency.

As best shown in the exploded view of Figure 4, which is reproduced to the right, the illustrated locking cap 20 generally comprises a face plate 32 and a plug portion 38. See [0031]. The face plate 32 comprises a front surface 86 and a rear or back surface 88. See



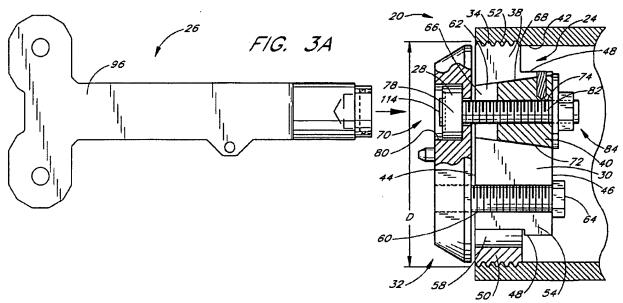
[0051]. The face plate 32 also can comprise at least two pins 94 that project from the front surface 86. In the illustrated embodiment, the two pins 94 are connected to the plug portion via the face plate 32 such that the pins 94 can allow rotation of the plug portion 38 without facilitating expansion or contraction of the plug portion 38. See [0052].

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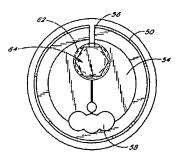
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The face plate 32 can be connected to the plug portion 38. See [0050]. In the illustrated configuration, the face plate 32 is connected to the plug portion 38 such that the back surface 88 of the face plate 32 is proximate a surface of the plug portion 38. See Figure 3A. In some embodiments, the back surface 88 of the face plate 32 substantially faces a front surface 44 of the plug portion 38. Id.

The plug portion 38 has a front surface 44, a rear surface 46 and a side surface 48. See [0036]. The plug portion 38 is sized and configured to be received by the pipe end with the side surface 48 of the plug portion 38 having a surface area generally coextensive with an inner contacted surface of the pipe. Id. At least a portion of the plug portion 38 is capable of selective expansion and contraction to create a frictional interlock between the locking cap 20 and the pipe end. Id.

A slot 56 extends longitudinally between the front surface 44 and the rear surface 46 while also extending radially between the side surface 48 and a relief opening 58 defined within



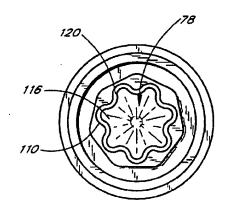
the plug portion 38. See [0040] and [0041]. A channel 66 is defined through the plug portion 38 along the slot 56. See [0044]. The channel 66 is radially displaced from the relief opening 58. See Figure 3B, which is reproduced to the left.

The channel 66 receives a longitudinally translatable spreader member 40. See [0044]. At least one surface of the spreader member

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40 or the channel 66 is tapered such that the spreader member 40 and the channel 66 cooperate to expand and retract the plug portion 38. *Id*.

A key 26 also can be provided for locking and unlocking the locking cap 20. See Figure 3A and [0055]. The key 26 comprises a head 100 and a handle 96. Id. In one configuration, the head 100 features a seven sided protrusion 110. See Figure 7, which is reproduced to the right. The head 100 advantageously is selectively engageable with a related structure on the locking cap 20. Id. The handle 96 preferably is configured to plastically deform when a level of torque exceeds a predetermined level of torque and the key 26 more preferably does not require a relief cut.



GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The first issue before the Board is whether the subject matter of Claims 1-3, 32-34, 36 and 38 is anticipated by U.S. Patent No. 5,419,650 to Hoshino.

The second issue before the Board is whether the subject matter of Claim 7 is rendered unpatentable by the combination of Hoshino and U.S. Patent No. 4,651,771 to Borenstein.

The third issue before the Board is whether the subject matter of Claims 4-6 is rendered unpatentable by the combination of Hoshino and U.S. Patent No. 5,803,110 to Segal.

The fourth issue before the Board is whether the subject matter of Claims 15-17 is rendered unpatentable by the combination of Hoshino and U.S. Patent No. 4,526,193 to Drach.

The fifth issue before the Board is whether the subject matter of Claims 24-28 is rendered unpatentable by U.S. Patent No. 5,704,261 to Strauch.

The sixth issue before the Board is whether the subject matter of Claims 24 and 29 is rendered unpatentable by U.S. Patent No. 5,033,501 to Stehling and Strauch.

The seventh issue before the Board is whether the subject matter of Claims 24 and 30 is rendered unpatentable by the combination of Borenstein and U.S. Patent No. 5,295,831 to Patterson.

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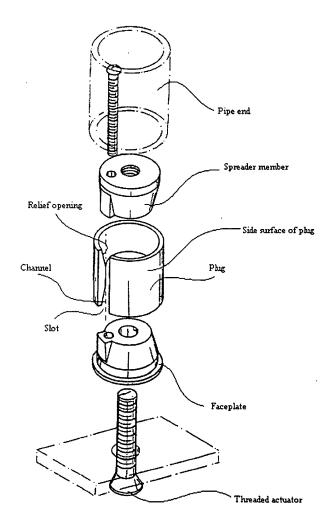
APPELLANT'S ARGUMENTS

Claims 1-3, 32-34, 36 and 38 Are Not Anticipated by Hoshino

Claims 1–3, 32-34, 36 and 38 stand rejected as anticipated by Hoshino (U.S. Patent No. 5,419,650); however, Hoshino did not disclose each limitation of the rejected claims.

To facilitate understanding of the respective positions, Appellant includes a modification of Figure 1 of Hoshino that sets forth the Examiner's application of Hoshino. With this understanding of Hoshino, Appellant will address some of the claim limitations not disclosed by Hoshino.

Claims 1, 32 and 33 are independent claims with Claims 2, 3, 34, 36 and 38 depending from Claim 1. Each of independent Claims 1, 32 and 33 recites, among other limitations, a



channel that receives a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and contract the plug portion. These claims also recite a slot extending longitudinally between a front surface of the plug portion and a rear surface of the plug portion and radially between a side surface of the plug portion and a relief opening defined within the plug portion.

As shown to the left, the Examiner has construed the single lumen through the "plug" as defining both "the relief opening" and the "channel". The "channel" has been defined by the Examiner as the narrowest portion of the lumen with the "relief opening" being defined by the Examiner as the sloping wall of the plug that, at its narrowest portion, becomes the "channel." Thus,

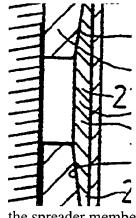
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under the Examiner's construction, the channel is indicated by the dashed line in the modified figure with the relief opening being the region defined between the sloping surfaces and the dashed line. In other words, the channel is cylindrical and its only actual surface, surface 23, is positioned at a location within the "plug" that will not contact any tapered surface of the "spreader member," as shown in Figure 2 of Hoshino.

The Examiner has argued that Figure 6of Hoshino, which is reproduced to the right, shows the tapered surface of the spreader 40 engaging the vertical wall 23 (i.e., the channel in the Examiner's construction) to spread the plug. The Examiner's argument is not possible given the actual construction of Hoshino. Hoshino uses two metal components that each has a tapered surface. The tapered surfaces slide along each other to expand the outer component. There is no possible contact between the

FIG.6

cylindrical portion 23 (i.e., the "channel") and the tapered surface of the spreader 40.



Once in the region of the cylindrical portion 23, the tapered surface of the spreader 40 is useless – it is no longer in contact with the wall. This is amply demonstrated by the enlarged portion of Figure 6 reproduced to the left. Thus, **the channel** and the spreader member of Hoshino cannot cooperate to expand and contract the plug portion. Rather, under the Examiner's construction, **the tapering surface of the "relief opening"** and

the spreader member cooperate to expand and contract the plug portion.

Claims 1, 32 and 33

Hoshino did not identically disclose every element of the rejected claims. See *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1990) (stating that the identical invention must be shown in as complete detail as is contained in the claim). Since Hoshino did not disclose, among other limitations, "the spreader member and the channel [cooperating] to expand ... the plug portion," Claims 1, 32 and 33 are not anticipated by Hoshino. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claims 1, 32 and 33.

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Claim 33

Moreover, Claim 33 recites, among other limitations, the plug portion of the fire department connection locking cap sized and configured to be received by the pipe end of the fire department connection with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end of the fire department connection. Applicant respectfully submits that Hoshino did not disclose any structure associated with a fire department locking cap or a fire department connection. It is fundamental that, under 35 U.S.C. 102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim. Here, Hoshino failed to disclose a fire department connection locking cap with the recited configuration.

For at least these reasons as well as those discussed above, Hoshino did not anticipate Claim 33. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 33.

Claim 36

While Claim 36 also is not anticipated for the same reasons that Claim 1 is not anticipated, Claim 36 also recites, among other limitations, that the slot extends completely through the channel. As explained above, under the Examiner's construction, the channel is the cylindrical center of the lumen. As such, the slot extends only to one side of the channel and extends along only a portion of the channel. Thus, under no construction consistent with the construction used to reject Claim 1 can the slot of Hoshino be argued to extend completely through the channel. For at least this additional reason, Hoshino did not anticipate Claim 36. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 36.

Claims 2, 3, 34, 36 and 38

Claims 2, 3, 34 and 38 ultimately depend from Claim 1 and each of these dependent claims is not anticipated for at least the same reasons as Claim 1 is not anticipated. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claims 2, 3, 34 and 38.

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Claim 7 Is Patentable Over the Combination of Hoshino and Borenstein

Claim 7 stands rejected as unpatentable over the combination of Hoshino and Borenstein (U.S. Patent No. 4,651,771). However, the Examiner has not established a prima facie case of obviousness. The Patent and Trademark Office has the burden under 35 USC 103 to establish a prima facie case of obviousness. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-87 (Fed. Cir. 1984). To establish a prima facie case of obviousness, three basic criteria must be met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Here, Hoshino and Borenstein are not properly combinable.

The Office Action states that "Hoshino teaches a plug member on a locking cap but fails to specify the material used." Borenstein is then combined with Hoshino to assert that the material from Borenstein, brass, can be combined with Hoshino, and in doing so, the combination allegedly renders Claim 7 obvious. Applicant respectfully submits that Claim 7 is patentable over this combination and that the combination is improper.

First, Claim 7 depends from Claim 1, and as explained previously, Hoshino does not teach all the limitations recited in Claim 1. As Borenstein is only combined with Hoshino to establish a choice of material, the combination of Hoshino and Borenstein still lack a teaching or suggestion of all the limitations of Claim 1 for the reasons set forth above. Accordingly, Claim 7 should be allowed because it depends from an allowable claim.

Second, if Hoshino and Borenstein are combined, the combination would be for the purpose of establishing a brass plug portion. The plug portion of Hoshino, however, is a thin-walled tube, and combining the references would necessarily result in a brass, thin-walled tube. The brass, thin-walled tube would necessarily yield too easily and would not return to a compressed state when the moveable member is retracted. Thus, the combination would render Hoshino unfit for its intended purposes. Applicant, therefore, respectfully submits that the combination of Hoshino and Borenstein is inappropriate as it would render the modified reference unfit for its intended purpose.

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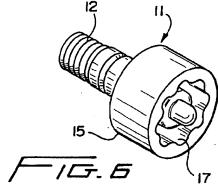
For at least these reasons, the subject matter of Claim 7 is not rendered unpatentable by the combination of Hoshino and Borenstein. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 7.

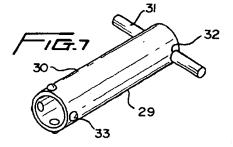
Claims 4-6 Are Patentable Over the Combination of Hoshino and Segal

Claims 4-6 stand rejected as unpatentable over the combination of Hoshino in view of Segal (U.S. Patent No. 5,803,110).

Claims 4-6 depend from Claim 1, and as explained previously, Hoshino does not teach all the limitations recited in Claim 1. As Segal is only combined with Hoshino to establish an allegedly similar key head, the combination of Hoshino and Segal still lack a teaching or suggestion of all the limitations of Claim 1 for the reasons discussed above. Accordingly, Claims 4-6 are patentable over the applied combination.

Segal has been relied upon by the Examiner for a teaching of a bolt head, which is shown in Figure 6. The bolt head comprises 8 apexes defined by 8 wavy grooves. The Examiner also apparently is relying upon Figure 7 to show a key head portion with a male pattern that is complementary to the female pattern of the bolt head. Figure 7 is reproduced to the right as well. As can be seen in the two figures, the "pattern" of the "key" clearly is not complementary to the "pattern" of the bolt head. The male key may engage with the female pattern of the bolt head but being complementary, as used in the specification and the claims of the present application, indicates more than just engagement as can be determined by comparing the language of Claim 3 with the language of Claim 4.





Claim 4

Claim 4 recites, among other limitations, the key head portion having a male pattern that is complementary to the female pattern. Such a construction is not taught or suggested by Segal

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and such a construction is not taught or suggested by Hoshino. Thus, such a construction is not taught or suggested by the combination of Hoshino and Segal.

Accordingly, Claim 4 is patentable over the combination of Hoshino and Segal. Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 4.

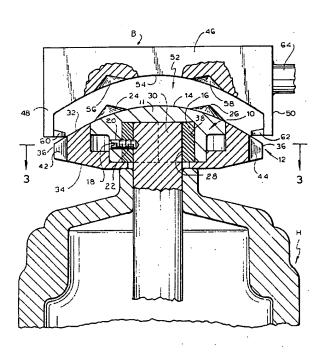
Claims 5 and 6

Claims 5 and 6 depend from Claim 4 and are patentable over the applied combination for at least the same reasons that Claim 4 is patentable over the applied combination. Moreover, Claim 5 recites that the female pattern is a cloverleaf consisting of seven apexes and eight wavy grooves interconnecting the seven apexes. As such, the pattern of Claim 5 must have seven apexes and no more. Thus, Claim 5 also is not taught by the combination.

Accordingly, Claims 5 and 6 are patentable over the combination of Hoshino and Segal. Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 4.

Claims 15-17 Are Patentable Over the Combination of Hoshino and Drach

Claims 15-17 stand rejected as unpatentable over the combination of Hoshino in view of Drach (U.S. Patent No. 4,526,193). Claims 16 and 17 stand or fall with Claim 15.



Drach taught conically shaped projections 24, 26 that were used to couple a wrench B to an inner member 10. By rotating the inner member 10, a valve stem 30 could be manipulated to turn on and off a fire hydrant H. An outer member 12 rotated freely about the outer circumference of the inner member 10 to make it difficult to turn the inner member 10 by any means other than using the conically shaped projections 24, 26.

The Examiner contends that the Hoshino face plate 32 is "integral" with the plug 21 and, as such, providing pins on the

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face plate, as taught by Drach, would provide pins on the plug (assuming that is integral with the face plate).

As discussed above, the Patent and Trademark Office has the burden under 35 USC 103 to establish a *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-87 (Fed. Cir. 1984). To establish a *prima facie* case of obviousness, three basic criteria must be met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See M.P.E.P. § 2143*.

Thus, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching, in the prior art, of the desirability of making the specific combination. *See In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984); and *MPEP 2143.01*. Appellants respectfully submit that the Examiner has not identified any motivation, suggestion or teaching in the prior art of the desirability of combining Hoshino and Drach, and thus has failed to establish a *prima facie* case of obviousness.

Claim 15 specifically recites that the pins are "connected to the plug to allow rotation of the plug but not to facilitate expansion or contraction of the plug." There is absolutely no reason suggested by the prior art to provide the plug of Hoshino with the pins of Drach. The pins of Drach are used to drive the actuator – the plug is not the actuator in Hoshino.

The Examiner attempts to remedy the lack of teaching or suggestion by stating that "it would have been obvious to one of ordinary skill in the art to change the key configuration of the face plate 32 of Hoshino by providing pin members as taught by Drach since they are art related equivalents." Page 4 of the Office Action dated June 24, 2005. Thus, the Examiner's own reasoning would substitute the pins for the key configuration, which is used to move the actuator that expands and contracts the plug. Claim 15, however, recites, among other limitations, "the pins being connected to the plug to allow rotation of the plug but not to facilitate expansion or contraction of the plug." Thus, the Examiner's own suggestion would not result in the claimed configuration.

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Accordingly, there is no proper suggestion to combine the applied references and, if there were a proper suggestion, the resulting configuration still would not suggest every recited limitation of the rejected claim. Thus, Claim 15 is patentable over the applied combination. Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 15.

Claims 16 and 17 depend from Claim 15 and are patentable over the applied combination for at least the same reasons that Claim 15 is patentable over the applied combination. Appellant respectfully requests that the Board also reverse the Examiner's rejection of Claims 16 and 17.

Claims 24-28 Are Patentable Over Strauch

Claims 24–28 stand rejected as unpatentable over Strauch et al. (U.S. Patent No. 5,704,261). Strauch did not teach or suggest each limitation of the rejected claims.

Strauch taught a torque-exerting tool such as a screwdriver in which the shank section of the tool had a lower torsion spring constant than the working portion. There is no teaching or suggestion of a locking cap or a key for use with a locking cap.

Claims 24, 26 and 27

Claim 24 recites, among other limitations, a locking cap key for locking and unlocking a locking cap...the head selectively engageable with a related structure on the locking cap. Applicant submits that the preamble recitation of a locking cap key is a limitation on the claim and that a screwdriver is not a key. Moreover, the teaching by Strauch of a deforming screwdriver is not a teaching or a suggestion of a deformable locking cap key that is engageable with a related structure on the locking cap. As discussed above, without such a teaching or suggestion, a *prima facie* case of obviousness has not been established and Claim 24 is properly patentable over Strauch. Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 24.

Claims 26 and 27 depend from Claim 24 and are patentable over the applied reference for at least the same reasons that Clam 24 is patentable over the applied reference. Appellant respectfully requests that the Board also reverse the Examiner's rejection of Claims 26 and 27.

Claim 25

Claim 25 depends from Claim 24 and is patentable over the applied reference for at least the same reasons that Claim 24 is patentable over the applied reference. Claim 25 also recites,

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among other limitations, that the handle be configured to plastically deform when a level of torque exceeds a predetermined level of torque required to lock the locking cap in position. Again, there is no teaching or suggestion of such a limitation in Strauch. Without the requisite teaching or suggestion, a *prima facie* case of obviousness has not been established and Claim 25 is properly patentable over Strauch. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 25.

Claim 28

Claim 28 depends from Claim 24 and is patentable over the applied reference for at least the same reasons that Claim 24 is patentable over the applied reference. Claim 28 also recites, among other limitations, that the related structure on the locking cap includes a recessed pattern that is complementary to the raised pattern recited by Claim 27. As explained above, there is not teaching or suggestion in Strauch of a locking cap. Without such a teaching or suggestion, a prima facie case of obviousness has not been established and Claim 28 is properly patentable over the reference. Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 28.

Claims 24 and 29 Are Patentable Over Stehling and Strauch

Claims 24 and 29 stand rejected as unpatentable over Stehling in view of Strauch. Stehling and Strauch are not properly combinable. Even if combined, Stehling and Strauch did not teach or suggest each limitation of the rejected claims.

Stehling taught a wrench that had multiple purposes: (1) removing a fire hydrant cap; (2) actuating a fire hydrant by manipulating the valve stem; (3) operating equipment on the truck. Accordingly, the same wrench was used for activities requiring varied levels of torque. There is no teaching or suggestion to configure the handle of the wrench to plastically deform when a level of torque exceeded a predetermined torque. Such a configuration would require that the level of torque be set to the greatest torque that the wrench needed to impart, regardless of whether that torque was in association with the cap, the valve stem or the equipment on the truck.

Strauch taught a torque-exerting tool such as a screwdriver in which the shank section of the tool had a lower torsion spring constant than the working portion. The shank was capable of

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plastic deformation following an elastic deformation. Strauch also did not provide any motivation to combine the two references.

The Examiner stated that "[i]t would have been obvious to one of ordinary skill in the art to modify the key of Stehling by providing a deformation zone as taught by Strauch et al as an obvious matter of design choice in enhancing the security of the lock cap." This asserted suggestion of the combination's desirability, however, does not come from either of the references or the prior art of record. In this regard, Stehling says nothing about the need for to protect the cap from being over-tightened. Indeed, Stehling anticipates that, once tightened, actions taken by vandals may cause further tightening of the cap. In addition, Strauch says nothing about using the deformation feature taught by Strauch in the environment of a locking cap – Strauch is only concerned with tool bits. Thus, nothing can be taken from either reference that would suggest incorporating Strauch's deforming feature with the wrench disclosed by Stehling.

Moreover, as explained at Col. 1, lines 53-56, the torque applied to the wrench is considerable. The cap would be installed using the wrench. Col. 3, lines 7-11. Protecting the cap would require that the wrench deform when the torque applied during tightening exceeds the predetermined torque. However, if vandals attempt to remove the cap, the cap further tightens onto the fire hydrant. Thus, to remove the cap, the allowable torque would necessarily have to be greater than the torque at which the wrench deformed during installation of the cap. Thus, to protect the cap by limiting installation torque, the ability to always be able to remove the cap in an emergency would be compromised. For this additional reason, modifying the wrench of Stehling by providing a deformation zone as taught by Strauch would render the disclosed invention of Strauch unusable for its intended purpose and, therefore, such a modification would not be proper.

For at least these reasons, the combination of Stehling and Strauch is not proper and Claims 24 and 29 are properly patentable. Appellant respectfully requests that the Board reverse the Examiner's rejections of Claims 24 and 29.

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Claims 24 and 30 Are Patentable Over Borenstein and Patterson

Claims 24 and 30 stand rejected as unpatentable over Borenstein in view of Patterson. The two references, however, do not teach or suggest each limitation of Claims 24 and 30.

Borenstein taught a wrench for use with a fire hydrant protective cap. Patterson taught a disposable torque wrench for dental components. The torque wrench of Patterson requires a relief cut to ensure that the wrench will yield as described by the patent.

Claim 24 recites, among other limitations, that the locking cap keys do not include a relief cut, as required by Patterson. Accordingly, Applicant respectfully submits that neither reference taught or suggested a handle that was configured to plastically deform when a level of torque exceeded a predetermined level of torque and where the key did not require a relief cut. Without such a teaching, Claim 24 is properly patentable over the applied combination. Appellant respectfully requests that the Board reverse the Examiner's rejection of Claims 24 and 29.

CONCLUSION

In view of the foregoing, Appellant respectfully submit that the Examiner's rejections are not well founded. Appellant therefore respectfully request that the Board reverse the Examiner's rejections.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 12.72.2005

By

Registration No. 44.304

Attorney of Record

Customer No. 20,995

(949) 760-0404

Filed: February 27, 2004

CLAIMS APPENDIX

1.(Original) A locking cap for a pipe end, the locking cap comprising a face plate and a plug portion, the face plate having a front surface and a rear surface, the plug portion having a front surface, a rear surface and a side surface, a slot extending longitudinally between the front surface and the rear surface and radially between the side surface and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot, the plug portion connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion sized and configured to be received by the pipe end with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.

- 2.(Original) The locking cap of Claim 1 further comprising an actuator mechanism, the actuator mechanism having an actuator shaft which extends through the channel and is engaged with the spreader member such that as the actuator shaft rotates within the channel the spreader member translates within the channel.
- 3.(Original) The locking cap of Claim 2, wherein the actuator shaft has an actuator head portion, the actuator head portion being selectively engageable with a key head portion such that the key head portion selectively causes the actuator to rotate.
- 4.(Original) The locking cap of Claim 3, wherein the actuator head portion has a female pattern and the key head portion has a male pattern that is complementary to the female pattern.
- 5.(Original) The locking cap of Claim 4, wherein the female pattern is a cloverleaf consisting of seven apexes and eight wavy grooves interconnecting the seven apexes.
- 6.(Original) The locking cap of Claim 4, wherein the female pattern comprises at least five apexes.
 - 7.(Original) The locking cap of Claim 1, wherein the plug portion is formed from brass.
- 15.(Previously Presented) A locking cap for a pipe end comprising a face plate, the face plate having a front surface and at least two pins projecting from the front surface, the face plate having a back surface and being connected to a plug portion such that the back surface of the face

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plate is proximate a surface of the plug portion, at least a portion of the plug portion being capable of selective expansion and contraction to create a frictional interlock between the locking cap and the pipe end, the pins being connected to the plug to allow rotation of the plug but not to facilitate expansion or contraction of the plug.

16.(Original) The locking cap for a pipe end of Claim 15 wherein the pins are selectively engageable by a key element for effecting leveraged rotation of the locking cap relative to the pipe end.

17.(Original) The locking cap for a pipe end of Claim 16, wherein two pins each have center lines and the centerlines are positioned a first distance apart, and wherein the key element further comprises a handle having at least two holes which are the first distance apart on center.

- 24.(Previously Presented) A locking cap key for locking and unlocking a locking cap, the key comprising a head and a handle, the head selectively engageable with a related structure on the locking cap and the handle being configured to plastically deform when a level of torque exceeds a predetermined level of torque, and wherein the key does not require a relief cut.
- 25.(Original) The locking cap key of Claim 24, wherein the predetermined level of torque exceeds that required to lock the locking cap in position.
- 26.(Original) The locking cap key of Claim 24, wherein the key assumes a permanently set spiral twist as a result of the plastic deformation.
- 27.(Original) The locking cap key of Claim 24, wherein the head has a raised pattern disposed on a distal tip of the head.
- 28.(Original) The locking cap key of Claim 27, wherein the related structure on the locking cap includes a recessed pattern that is complementary to the raised pattern.
- 29.(Original) The locking cap key of Claim 24, wherein the handle includes a hanging ring.
- 30.(Original) The locking cap key of Claim 24, wherein the key has a generally T shaped configuration comprising a narrow arm portion and a cross-member, the cross-member having at least one hole disposed therein.
- 32.(Previously Presented) A locking cap for a pipe end, the locking cap comprising a face plate and a plug portion, the face plate having a front surface and a rear surface, the plug portion having a front surface, a rear surface and a side surface, a slot extending longitudinally

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February 27, 2004

between the front surface of the plug portion and the rear surface of the plug portion and radially between the side surface of the plug portion and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot and radially displaced from the relief opening, the plug portion being connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion sized and configured to be received by the pipe end with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.

33.(Previously Presented) A locking cap for a fire department connection, the fire department connection locking cap comprising a face plate and a plug portion, the face plate of the fire department connection locking cap having a front surface and a rear surface, the plug portion of the fire department connection locking cap having a front surface, a rear surface and a side surface, a slot extending longitudinally between the front surface and the rear surface and radially between the side surface and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot, the plug portion connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion of the fire department connection locking cap sized and configured to be received by the pipe end of the fire department connection with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end of the fire department connection, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.

- 34.(Previously Presented) The locking cap of Claim 1, wherein the channel intersects only a portion of the slot.
- 36.(Previously Presented) The locking cap of Claim 1, wherein the slot extends completely through the channel.
- 38.(Previously Presented) The locking cap of Claim 1, wherein the channel and the slot extend completely through the plug portion.

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Filed

February 27, 2004

EVIDENCE APPENDIX

- 1. The Present Application as Published (United States Publication No. 2004/0168488A1)
- 2. United States Patent No. 5,419,650, Issued to Hoshino, Applied in Office Action mailed June 24, 2005.
- 3. United States Patent No. 4,651,771, Issued to Borenstein, Applied in Office Action mailed June 24, 2005.
- 4. United States Patent No. 5,803,110, Issued to Segal, Applied in Office Action mailed June 24, 2005.
- 5. United States Patent No. 4,526,193, Issued to Drach, Applied in Office Action mailed June 24, 2005.
- 6. United States Patent No. 5,704,261, Issued to Strauch, Applied in Office Action mailed June 24, 2005.
- 7. United States Patent No. 5,033,501, Issued to Stehling, Applied in Office Action mailed June 24, 2005.
- 8. United States Patent No. 5,295,831, Issued to Patterson, Applied in Office Action mailed June 24, 2005.
- 9. Office Action Mailed June 24, 2005.

Appl. No. Filed

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10/789,630 February 27, 2004

RELATED PROCEEDINGS APPENDIX

None

AMEND

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Page 1 of 2

Please Direct All Correspondence to Customer Number 20995

NOTICE OF APPEAL

FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

DEC 2 7 2005

Applicant

Dohn J. Trempala

App. No

10/789,630

Filed

February 27, 2004

For

LOCKING CAP SYSTEM

Examiner

Suzanne Lale Dino Barrett

Art Unit

3676

CERTIFICATE OF MAILING

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

December 22, 2

(Date)

obert J Roby Reg. No 44,304

Mail Stop AF

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

COURTESY COPY

Sir:

Applicant hereby appeals to the Board of Patent Appeals and Interferences from the decision of the Examiner rejecting Claims 1-7, 15-17 and 24-38 of the present application as contained in the Office Action that was mailed on June 24, 2005.

The present application qualifies for Small Entity Status under 37 CFR 1.27.

FEE CALCULATION							
FEE TYPE		CALCULATION	TOTAL				
Notice of Appeal	41.20(b)(1)	1401 (\$250)		\$250			
Excess Claims > 20	22 - 25 = 0	2202 (\$25)	0 x 25 =	\$0			
Independent > 3	5 - 6 = 0	2201 (\$100)	0 x 100 =	\$0			
Multiple Claim	1.16(j)	2203 (\$180)		\$0			
			TOTAL FEE DUE	\$250			

- (X) A check in the amount of \$250 is enclosed.
- (X) Return prepaid postcard.

Docket No.:

KNOXX.024C2

App. No.:

10/789,630

December 22, 2005

Page 2 of 2

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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Dated: December 22, 2005

Cobert J. Roby

Registration No. 44,304

Attorney of Record Customer No. 20,995

(949) 760-0404

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APPLICATION NO.	FILING DATE	FIRST NA	MED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,630	02/27/2004	Doh	J. Trempala	KNOXX.024C2	7659
20995 7	7590 06/24/2005			EXAMI	NER
	ARTENS OLSON &	BEAR LLP	85	BARRETT, SUZA	INE LALE DINO
2040 MAIN ST FOURTEENT			OIPE	ART UNIT	PAPER NUMBER
IRVINE, CA	92614	/	\$\	3676	
			DEC 2 7 2005 By	DATE MAILED: 06/24/2005	
		<u>\</u>	TO TRADEMARKOR		

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

OIP E 4		
() () () () () () () () () ()	pplication No.	Applicant(s)
DEC 27 2005	0/789,630	TREMPALA, DOHN J.
Uπice Action Summagy Sign	xaminer .	Art Unit
TRADEMARK S	uzanne Dino Barrett	3676
The MAILING DATE of this communication appear Period for Reply	s on the cover sheet with the c	orrespondence address -
A SHORTENED STATUTORY PERIOD FOR REPLY IS THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(e after SDX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply with 1 NO period for reply is specified above, the maximum statutory period will a Failure to reply within the set or extended period for reply will, by statute, day any reply received by the Office later than three months after the mailing day earned patent term adjustment. See 37 CFR 1.704(b).	. In no event, however, may a reply be time hin the statutory minimum of thirty (30) day pply and will expire SIX (6) MONTHS from se the application to become ABANDONE	nely filed s will be considered timely. the malling date of this communication. D (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 07 April	<u>2005</u> .	
	tion is non-final.	
3) Since this application is in condition for allowance	except for formal matters, pro	secution as to the merits is
closed in accordance with the practice under Ex p	arte Quayle, 1935 C.D. 11, 45	53 O.G. 213.
Disposition of Claims		
4) Claim(s) <u>1-7,15-17 and 24-38</u> is/are pending in th	e application.	
4a) Of the above claim(s) is/are withdrawn	from consideration.	
5)⊠ Claim(s) <u>31</u> is/are allowed.		
6)⊠ Claim(s) <u>1-7,15-17,24-30,32-34,36,38</u> is/are rejec	ted.	
7) Claim(s) <u>35 and 37</u> is/are objected to.		
8) Claim(s) are subject to restriction and/or e	ection requirement.	
Application Papers		
9) The specification is objected to by the Examiner.		
10)☐ The drawing(s) filed on is/are: a)☐ accept	ed or b) objected to by the E	Examiner.
Applicant may not request that any objection to the dra	wing(s) be held in abeyance. See	e 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction		' •
11) The oath or declaration is objected to by the Exam	iner. Note the attached Office	Action or form PTO-152.
Priority under 35 U.S.C. § 119		
12)☐ Acknowledgment is made of a claim for foreign pri	nrity under 35 (1.5.C. \$ 110/c)	(d) or (f)
a) All b) Some * c) None of:	only under 35 0.5.0. 9 1 19(a)	-(d) 01 (1).
1. Certified copies of the priority documents h	ve heen received	
2. Certified copies of the priority documents h		on No
3. Copies of the certified copies of the priority	• •	
application from the International Bureau (F		
* See the attached detailed Office action for a list of		ed.
		·
Attachment(s)		
1) Notice of References Cited (PTO-892)	4) Interview Summary	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	Paper No(s)/Mail Da 5) Notice of Informal P	ate atent Application (PTO-152)
Paper No(s)/Mail Date 4/7/05.	6) Other:	, ,
U.S. Patent and Trademark Office	· · · · · · · · · · · · · · · · · · ·	

Art Unit: 3676

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless :-

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1-3,32-34,36,38 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hoshino 5,419,650. Hoshino teaches a plug 21 and face plate 32 assembly for a pipe end 50 comprising a threaded actuator 70 having a configured head and attached to a tapered spreader member 41 which expands the plug member 21 into frictional engagement with the pipe walls 50 when locked. The plug comprises a front surface (at 51a in Fig.3), rear surface (at 21a in Fig.2), side surface (at 21a in Fig.1) and a slot 22 (fig.1) extending longitudinally between the front and rear and radially between the side and a relief opening (at 24 inside the plug) and further, wherein the inside of the plug forms a channel therethrough (coextensive with the surface 23 in Fig.1) and radially displaced from the relief opening (tapered portion 24), which receives a spreader member 41 and the actuator 70. With respect to new claim 32, the channel coextensive with surface 23 in Fig. 1 is clearly radially displaced from the relief opening

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(taper portion 24). With respect to new claim 33, the intended use of the device on a "fire department connection locking cap" is not accorded patentable weight since no additional structure is disclosed which would distinguish from the prior art locking cap and key and, therefor, the prior art key would be capable of being used on any cap having the claimed structure.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino '650 in view of Borenstein '771. Hoshino teaches a plug member on a locking cap but fails to specify the material used. Borenstein et al teach, in col. 4, line 65, the use of brass among other suitable materials for a plug lock member. It would have been obvious to one of ordinary skill in the art to modify the material of Hoshino by providing brass as taught by Borenstein et al as an obvious matter of design choice.
- 5. Claims 4-6 are rejected under 35 U.\$.C. 103(a) as being unpatentable over Hoshino '650 in view of Segal '110. Segal teaches the use of a bolt head 17 (Fig. 6) comprising at least 7 apexes and 8 wavy grooves actuated by a similarly configured key head. It would have been obvious to one of ordinary skill in the art to modify the bolt

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head 22 of Hoshino by providing a configured head and accompanying key head as taught by Segal to enhance the security of the lock.

- 6. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino '650 in view of Drach '193. Drach teaches a lock cap face plate having two spaced pin members 24,26 which are received in pin apertures 56,58 on a key member. It would have been obvious to one of ordinary skill in the art to change the key configuration of the face plate 32 of Hoshino by providing pin members as taught by Drach since they are recognized art related equivalents.
- 7. Claims 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strauch et al 5,704,261. Strauch et al teach a key/tool member 3 comprising a handle shaft 4, defining a deformation zone without a relief cut which, upon torqueing of the tool beyond a predetermined amount, deforms plastically (col. 4, lines 10-24; claims 10,12). It would have been obvious to one of ordinary skill in the art to utilize such a tool/key as taught by Strauch et al, on a locking cap actuator such as that previously discussed with respect to Hoshino.
- 8. Claims 24,29 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Stehling '501 in view of Strauch et al. '261. Stehling teaches a key member having a hole portion (at 40) which is capable of receiving a key ring. It would have been obvious to one of ordinary skill in the art to modify the key of Stehling by providing a deformation zone as taught by Strauch et al. as an obvious matter of design choice in enhancing the security of the lock cap.

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9. Claims 24,30 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Borenstein '771 in view of Patterson 831. Borenstein et al teach a key member comprising a T-shaped cross member configuration at one end (49/66) with a hole 66 disposed in one cross member. It would have been obvious to one of ordinary skill in the art to modify the key of Borenstein et all by providing a deformation zone as taught by Strauch et al as an obvious matter of design choice in enhancing the security of the lock cap.

Allowable Subject Matter

10. Claim 31 is allowed.

The new limitation in claim 31 requiring the channel to be disposed between the slot and the relief opening defines over Hoshino which clearly teaches the channel (portion coextensive with surface 23 in Fig. 1) radially disposed after the slot 22 and relief opening (tapered portion 24).

11. Claims 35,37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The slot of Hoshino does not extend through "two sides" of the channel as set forth in claim 35 and further, does not teach that the face plate and plug are secured by fasteners (plural), since Hoshino teaches that they are secured only by the fastener 70.

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Response to Arguments

12. Applicant's arguments filed 9/27/04 have been fully considered but they are not persuasive. The new matter rejection has been withdrawn in view of Applicant's persuasive arguments. Thus, with respect to claims 24-30, the Patterson rejection is withdrawn and a new rejection set forth as discussed above.

With respect to Hoshino, initially it is noted that Applicant's drawing indicating the Examiner's interpretation of structure is accurate. Hoshino clearly teaches in Figure 1, a small tapered portion 24 at the front or upper surface of the plug which is being used to satisfy the relief opening structure, and a straight channel through the plug, coextensive from the inner surface 23 (i.e. a plane extending from the surface 23 straight through the plug and therefor, disposed radially inward of the tapered portion 24) to satisfy the channel structure. It is noted that the claims do not require that the relief opening extend completely through the plug, therefore the small tapered portion 24 of Hoshino satisfies this limitation. Furthermore, Applicant's arguments on page 8 of the remarks, with respect to the recitation that either the spreader or channel have a tapered portion to expand the plug, are not persuasive since, as shown in Fig. 6 of Hoshino, the spreader 40 has a taper which engages the channel surface coextensive with portion 23, to spread the plug. Contrary to applicant's arguments in lines1-3 of page 9, Fig.6 of Hoshino clearly shows a portion of the spreader taper engaging the vertical wall portion 23 of the channel to spread the plug. With respect to applicant's arguments regarding the Drach reference, it is maintained that since the Hoshino face plate 32 is integral with the plug 21, providing pins on the face plate as taught by Drach

Page 7

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would obviously provide them on the plug which is integral therewith. Accordingly, claims 1-7,15-17,24-30,32,33-34,36,38 stand rejected.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the key of Trempala D472,434.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne Dino Barrett whose telephone number is 571-272-7053. The examiner can normally be reached on M-Th 8:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Suzahne Dino Barrett Primary Examiner Art Unit 3676

sdb

INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

(Multiple sheets used when necessary)

SHEET 1 OF 1

EMOB

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Abptication Rigation 10789,630

Filing Date February 27, 2004

First Named Inventor Dohn J. Trempals

Art Unit 3676

Examinar Suzanne Lale Dino Barrett

Attorney Docket No. KNOXX.024C2

			U.S. PATENT	DOCUMENT8	
Examiner initials	Cits No.	Document Number Mumber - Kind Code (if known) Example: 1,234,567 B1	Publication Data MM-OD-YYYY	Name of Patentse or Applicant	Pages, Columns, Lines Where Raievant Passages or Relevant Figures Appear
130	1	0387,857	12/18/1997	Holmes	
3	2	D415,676	10/26/1999	Negishi et 61.	
	3	1,161,156	11/23/1915	Rennert	
	4	1,362,547	12/21/1920	Stone and Johnson	
	5	2,315,102	01/22/1941	Adems	
	•	2,565,569	08/28/1951	Smith	
	7	3,603,132	08/07/1971	Halmes	
	8	4,480,813	11/06/1984	McCauley et al.	
	9	4,602,664	07/29/1988	Stahling et al.	
	10	4,905,547	03/08/1990	Nigreili	
	11	5,037,260	08/08/1991	Rubin	
	12	5,148,727	09/22/1992	Williamson	
	13	5,390,573	02/21/1995	Mann	
	14	5,970,552	10/28/1999	Kwiecien at al.	
	15	5,044,670	04/04/2000	Citure et al.	
	10	6,069,253	07/18/2000	Stehling et al.	
	17	6,112,761	09/05/2000	Scotto	
	18	6,199,414	03/13/2001	Chang	
	19	6.340,933	01/22/2002	Chan et al.	
C5135	20	6,553,795	04/29/2003	Trempala	
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FOREIGN PATENT DOCUMENTS						
Examiner initials	CR9 No.	Foreign Patent Document Country Code-Number-Kind Code Exempte: JP 1234567 A1	Publication Date MM-OD-YYYY	Name of Patentine or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	۲1
	21					

		NON PATENT LITERATURE DOCUMENTS	
Equation initials	Citie No.	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	₹1

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Examiner Signature SDS2 To Oate Considered 6/13/05

*Swaminer Initial if reference considered, whether or not citation is to conformance with MPEP 609. Draw line through citation if n

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